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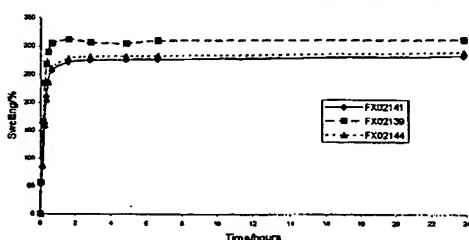
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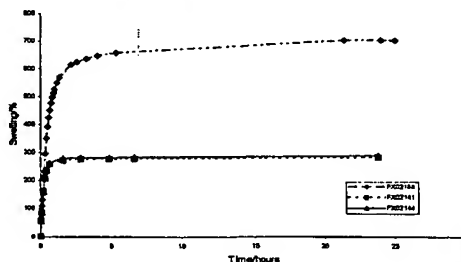
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(54) Title: WATER-SWELLABLE POLYMERS

Percentage Swelling Over Time of Two New Polymers (FX02141
and FX02144) Compared With Original Polymer (FX02139)



Percentage Swelling Over Time of Three New Polymers



(57) Abstract: A water-swellaible linear polyurethane polymer is formed by reacting a polyethylene oxide (e.g. PEG 4000 to 35,000), a difunctional compound (e.g. a diamine or diol such as 1,10-decanediol) with a diisocyanate. The ratio of the three components is generally in the range 0.1-1.5 to 1 to 1.1 - 2.5. The polyurethane is water-swellaible in the range 300 to 1700 % and soluble in certain organic solvents such as dichloromethane. It can be loaded with pharmaceutically active agents, particularly of high molecular weight, to produce controlled release compositions, such as pessaries etc.